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| 10/722,938  | 11/26/2003  | Lars Severinsson     | 03370-P0061A        | 9635             |
| 24126   | 7590        | 03/02/2006           | EXAMINER            |                  |
| ST. ONGE STEWARD JOHNSTON & REENS, LLC<br>986 BEDFORD STREET<br>STAMFORD, CT 06905-5619 |             |                      | WILLIAMS, THOMAS J  |                  |
|   |             | ART UNIT             |                     | PAPER NUMBER     |
|   |             |                      |                     | 3683             |
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**GROUP 3600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/722,938

Filing Date: November 26, 2003

Appellant(s): SEVERINSSON, LARS

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Todd M. Oberdick  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed January 3, 2006 appealing from the Office action  
mailed August 15, 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

US 5,739,626

Kojima et al.

4-1998

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/37939 to Rinsma et al. in view of US 5,739,626 to Kojima et al.

Re-claims 1-3, Rinsma et al. teach a device in a vehicle brake arrangement for determining an applied brake force, comprising: an electric motor 8, a thrust gear 22 is driven by the motor, a thrust rod 24 applies a brake force when the gear is driven, an enclosed elastically deformable medium 52/53 (figure 3, page 3 line 18 indicates this to be a “resilient intermediate pressure means”), a reaction force from the brake force acts upon the medium, a force sensor 50 transmits signals to the motor causing the motor to stop when a desired force has been attained. Rinsma et al. teach that the force sensor can take the form of a piezoelectric sensor. However Rinsma et al. is silent regarding the structure of the piezoelectric sensor, specifically whether the sensor includes a push rod disposed between the sensor element and the elastically deformable medium 53.

Kojima et al. teach a piezoelectric sensor for use in high temperature environments (see figure 1), the sensor apparatus is equipped with a push rod 10 that is

adapted to transmit a force applied to diaphragm 11 (in contact with a moveable medium) to the piezoelectric sensor 7. The sensor comprises a fixed force receiving cup (claim 2, interpreted as sleeve 5a), the end of the push rod opposite the medium engages and is provided with the sensor 7, element 5 is interpreted as a guiding and centering o-ring (as required by claim 3).

It would have been obvious to one of ordinary skill in the art to have provided the brake apparatus of Rinsma et al. with the force sensor taught by Kojima et al., thus reducing costs by providing the manufacturer with an off the shelf sensor designed for use in high temperature environments.

#### **(10) Response to Argument**

It is the opinion of the examiner that the combination of Rinsma et al. and Kojima et al. would not require substantial modification. The sensor of Kojima et al. would have simply been inserted into the space designed for sensor apparatus 50 of Rinsma et al. Furthermore, as stated above, the sensor of Kojima et al. is designed for use in high temperature environments, as would be experienced during periods of prolonged braking. By utilizing the combined attributes of the apparatus taught by Rinsma et al. regarding the remote placement of the sensor, and the performance characteristics of the sensor taught by Kojima et al. regarding high heat resistance and long service life (column 1 lines 58-60) one would realize a marked improvement. Thus it seems obvious to the examiner that the combination of Rinsma et al. and Kojima et al. would have enhanced the reliability and operation of the brake apparatus over just Rinsma et al. alone.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Thomas J. Williams

**THOMAS J. WILLIAMS  
PRIMARY EXAMINER**

*Thomas Williams*

3-22-06

Conferees:

JM 

TJW 

PJR 